DOCUMENT RESUME

ED 178 748 CE 023 176

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TITLE	Experiential Learning Programs: Synthesis of Findings and Proposed Framework for Future Evaluations.
INSTITUTION	Northwest Regional Educational Lab., Portland, Oreg.
SPONS AGENCY	Office of the Assistant Secretary for Policy, Evaluation and Research (DOL), Washington, D.C.
PUB DATE	Mar 79
CONTRACT	J-9-M-8-0111
NOTE	55p.; For related documents see CE 023 177-179 and CE 023 181
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Career Education; Educational Assessment; *Evaluation Methods; *Evaluation Needs; *Experiential Learning; High Schools; Literature Reviews; *Program Evaluation; Relevance (Education); Vocational Education; Work Experience Programs

ABSTRACT

This study was conducted to review evaluation studies of high school experiential learning programs to determine the nature of their findings and the essential elements that produce effective learning experiences in the community, and to assess the approaches used in these evaluations. Literature reviewed for the study centered on (1) work experience and training programs, (2) career or vocational programs, and (3) vocational/noncareer experiential programs such as service learning programs. Findings from the review of the literature indicate that the majority of evaluations appear to be poorly conceptualized and fail to build on previous evaluations of similiar programs. Based on these findings, a new framework for future evaluations was developed that includes three critical aspects: predesign investigations, designing the evaluation, and implementing and reporting the evaluation. (Nine policy recommendations that emerged in the process of assessing evaluations of experiential learning projects are included.) (LEA)

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EXPERIENTIAL LEARNING PROGRAMS: SYNTHESIS OF FINDINGS AND PROPOSED FRAMEWORK FOR FUTURE EVALUATIONS

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March 1979

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

This research study prepared for the Office of the Assistant Secretary for Policy, Evaluation and Research, U. S. Department of Labor by staff of the Education and Work Program of the Northwest Regional Educational Laboratory reviews findings from a number of evaluation studies of high school experiential learning programs and proposes a new framework for future evaluations that appears more congruent with the nature of experiential learning programs. As used in this study, experiential learning refers to a process of learning gained from both planned and unplanned experiences which involve the learner in meaningful activities and relationships with adults in the community. The learner is helped by another person to examine the meaning and implications of these experiences for his or her future growth.

Three categories of programs were studied: work experience and training programs, career or vocational education programs and nonvocational/career experiential programs such as service-learning programs.

The results of the study are summarized in nine policy recommendations. These recommendations are practical suggestions that DOL's Office of Youth Programs and those involved in the planning, implementation and evaluation of YEDPA projects can use:

- to direct research into areas likely to add to knowledge about how to enhance the development of disadvantaged youth
- to refine guidelines for project evaluations
- to increase the quality and utility of future evaluations.

INTRODUCTION

This study was conducted to review evaluation studies of high school experiential learning programs to determine the nature of their findings, the essential elements that produced effective learning experiences in the community and to assess the approaches used in these evaluations. After examining the limitations of these evaluations, the authors developed a new framework for future evaluations that appears more congruent with the nature of experiential learning programs. The resulting framework has the potential for improving the quality of future research and evaluation of community-based experiential programs where academic and/or career development outcomes are sought.

The primary methodology of this study was a comprehensive literature review pertaining to evaluation studies of experiential learning programs. The literature review centered on: 1) work-experience and training programs, 2) career or vocational programs and 3) vocational/noncareer experiential programs such as service learning programs. Since hundreds of experiential programs have been evaluated, the authors frequently reviewed studies that synthesized evaluations across more than a single program. Techniques for obtaining evaluation studies from the literature included a computerized search of the ERIC data base, contacts with federal agencies such as the Department of Labor, National Institute of Education and United States Office of Education, and contact with other research and development organizations such as Youthwork Inc., National Center for Research on Vocational

Education, Center for the Study of Evaluation and Center for Youth Development and Research.

This report contains three sections. Section I contains our review of the evaluation literature of experiential education programs and a summary of findings. Based on limitations of prior evaluation studies we propose a new framework for future evaluations in Section II. Policy implications from this study are found in Section III.

I. LITERATURE REVIEW

A number of writers have advocated the use of experiential methods in education. Significant among them have been the "mid-seventies" reports, e.g. Coleman et al., Brown et al., Martin et al., Weinstock and American Youth in the Mid-Seventies (cited in Zajchowski, 1978). William Van Til (cited in Zajchowski) has provided us with a succinct summary of these reports:

> The mid-1970's high school reform proposals encompass a variety of problems and are naturally different from each other to some degree. In general, however, the reports are critical of contemporary high schools as too large, age-segregated, overly separated, quasi-custodial environments for adolescents which do not sufficiently provide youth a transition to maturity and the adult world of work and community participation. In general, the reports support smaller, more diverse, age-integrated, and community-related schools characterized by both academic and action learning and supplemented by alternative paths to maturity through experiential learning by way of business-industry work organizations, social involvement opportunities and community education centers (p. 11).

Even while advocating experiential forms of education, Zajchowski (1978) points to American Youth in the Mid-Seventies for criticism of the lack of research and evaluation (p. 11).

- There is not yet much empirical evidence that action-learning produces significant affective growth in teenagers.

- There is little evidence that action-learning produces an increased sense of civic responsibility (p. 11).

Similar recommendations have been made recently (Schwondt, 1978; Keeton, 1978) that, in order to maintain credible standing, educational institutions cannot continue to provide credit for experiential learning without demonstrating the effectiveness of experiential education programs. Programs which are government sponsored have already begun to feel the pressure (Schiller, 1978). Congress is demanding evidence on which to base billions of dollars worth of decisions--which programs should be kept and for which groups?

Experiential learning programs may be classified in a number of ways such as the type of setting or the purposes of the program. The experiential programs discussed here will be classified as work experience and training, career/vocational education and nonvocational/career experiential programs. This grouping is based primarily on the various outcomes studied. Work experience programs are generally evaluated in terms of economic variables--whether participants are more likely to get a job and to make higher wages than if they had not participated. Career/vocational education programs are often evaluated primarily in terms of outcomes such as career knowledge and work attitudes in addition to affective variables--principally self-concept. Other types of experiential programs have usually been studies concerned with assessing self-concept social responsibility and affective growth of participants.

Work Experience and Training Programs

Work experience and training programs focus on vocational skill training and participants are typically paid for their involvement. Many work experience and training programs are aimed at the economically disadvantaged and have had the overall purpose of decreasing unemployment.

Schiller (1978) has reviewed studies relating to federal manpower programs. He found three major studies of the Public Employment Program (PEP) which became part of the Comprehensive Education and Training Act (CETA) programs.

> PEP program data do not indicate positive earnings effects. Comparisons of pre- and post-program participant data show a slight decrease in hourly wage rates. Employment increases revealed in program data are easily explained. The program enrolled persons of near "average" characteristics when they were underemployed or unemployed; later these persons regressed toward the mean (which was likely to be employment) (p. 112).

Three other programs which Schiller also discussed included Operation Mainstream, WIN and Supported Work. All had single evaluation studies. None of these studies showed higher employment for enrollees following participation. However, the evaluation of the Supported Work program did not yet have postprogram results.

Barton and Fraser (1978) also reviewed a study of the WIN project completed in 1975. This study found no success-rate differences among

enrollee characteristics (e.g. race and sex) except that a higher level of education appeared to be associated with both high placement and low dropout rates. Short-term job placement effects of the programs did not hold in the long run.

Schiller discussed the findings in several studies that there are differential results across programs by such variables as race, sex and prior education level. In a study by Schiller and others (Schiller et al., 1976) he concluded that these apparent differences could be explained "on the basis of recent preprogram employment experience (no employment versus some employment in the previous six month period)." It would appear that evaluation studies need to clarify the relationship between client profiles and type of program experiences.

Schiller also addressed the issue of why so little definitive evidence can be provided on manpower programs. The first two points in his critique hold true for experiential programs in general:

> There have been hundreds of evaluations of specific manpower programs, and these provide a foundation for studies of relative effectiveness. Unfortunately, this foundation is itself not very solid, as other researchers have noted. The most serious and familiar shortcomings of past evaluation studies are: (1) the absence of a comparison (control) group for identifying net program effects; (2) restricted time horizons that preclude measurement of longitudinal impact. Only a handful of past studies have been

reasonably successful in overcoming these problems and thus provided meaningful estimates of program impact (p. 111).

Barton and Fraser (1978) reviewed studies of programs in "Employment and Training" which corresponds to the category of Work Experience. The Neighborhood Youth Corps (NYC) model provided youth inschool, summer and out-of-school options and in rural and urban settings. The "explicit and implicit" goals of NYC "can be summarized as follows: (a) to redistribute income to the poor, (b) to increase the employment of youth, (c) to reduce teenage related crime and (d) to increase the lifetime earnings of enrollees through training, incentives to stay in school and work experience (p. 68)."

Of the six studies cited, only two had comparison groups for determining program effects. One of these studies found that participants and an older working comparison group maintained their functioning in terms of grades, good self-concept and "sense of control of their own destinies." A younger control group and dropouts changed negatively on these variables. Little evidence was cited to demonstrate enhanced postprogram employability or earning gains of participants which was the principal program objective. It was not clear whether NYC helped students to graduate from high school. There was evidence from one study that effects may differ by such factors as age, race, sex and school status.

Barton and Fraser report another study which evaluated the two-year Vocational Exploration in the Private Sector program. This study found that, while both grade point and attendance increased significantly for

participants over comparison group students, the proportions which graduated or dropped out remained the same. Following graduation, the comparison group showed twice the rate of unemployment that the participant group did. An evaluation of the Youth Conservation Corps showed that the young people involved were generally quite positive about their experiences. White and Spanish American corpsmembers were more enthusiastic than Black and Native Americans and older (18 year old) corpsmembers were more positive than younger (15 year old) corpsmembers. Goldberg and associates (1978) studied the noneconomic effects of the Job Corps, namely knowledge of work, attitudes toward work, interest in work, employment status and social-attitudinal impacts. Groups which were compared included No Shows, persons accepted into Job Corps but who did not participate (used as a comparison group); Persisters, those who completed the course; and Dropouts, those who terminated prematurely from the program.

Findings in the area of knowledge of work were that those who remained in the labor market (No Shows) did better than Persisters, who in turn showed more improvement than Dropouts. Attitudes toward work did not change for No Shows, were mixed with one significant decline for Persisters and declined significantly on all three measures for Dropouts. Employment status also failed to show advantages for Corpsmen. Although Persisters tended more often to be employed fulltime than others, the percentage of time worked after Job Corps termination was significantly higher for No Shows. Women tended to benefit more than men. The most apparent finding was that Dropouts showed the most

negatively on all indicators. In the area of social-attitudinal changes, Persisters improved on all five indicators while neither of the other two groups made substantial gains. Female Persisters, especially, showed gains in selfesteem.

Another area of inquiry for this study was the health and educational impact of Job Corps. Persisters did not improve on nutritional information but were significantly higher on the nutritional behavior measure. Health care (except for glasses) was better for Persisters since the Job Corps provided free care. In terms of educational attainment, it was found that few Job Corps members (a) received GEDs or (b) were ever enrolled in Job Corps classes. "Female Persisters, however, were the most likely to be in those two categories. Women of both groups entered Job Corps with more educational background (p. 16)." Some insight into the problems of the Job Corps educational component may be gotten from a recent evaluation of the World of Work curriculum component (Mellon, 1978). This evaluation was based on an examination of the curriculum objectives, materials and outcome measures. The evaluators found a lack of performance objectives and good outcome measures. They recommended that current World of Work materials be revised and some available commercial materials be incorporated. In addition, a recommendation was made to include an experiential component to supplement and reinforce the listening/reading acquisition of knowledge.

Summary of the Work Experience Programs

Despite the tremendous investment in the Work Experience and Training programs, little evidence has been found that the long-term employment of participants is positively affected. Other indices, such as attitudinal and self-concept measures have, in a few studies, shown some positive results for youth who remain in the programs for the complete cycle. Such changes could affect the employability of the participants. In addition, the data which do exist suggest that programmatic effects may differentially affect various subgroups in terms of race, sex and previous education. Finally, two studies noted that the greatest gains in both employability and attitude may be within "hard-core" groups such as offenders and Black teenage females. This type of variable must be studied carefully since these groups may have nowhere to go but "up" and the findings may be partially due to statistical artifact.

Career/Vocational Education Programs

Career education programs in this report are, for the most part, school based. They generally focus on helping participants acquire career knowledge and decision-making skills--skills which will facilitate job seeking, job maintenance and career planning. Some of these programs include vocational skill training but it is not the principal program purpose. Students may or may not be paid for their activities but receive academic or vocational credit toward graduation (at both the secondary and postsecondary levels). These programs usually attempt to relate and/or integrate the career experiences with academic experiences.

Bonnet (1978) reviewed and synthesized findings from 45 career education evaluation studies conducted in 1975-76. These included 26 projects at the end of three-year funding under Part D of PL 90-576 and 19 projects which had received one-year grants through the U. S. Office of Education, Office of Career Education (OCE). Although the instructional strategies were mixed, most of the projects claimed to be based on some type of classroom infusion model. To the extent it is possible to determine, only secondary level findings will be mentioned here.

Bonnet discussed the evaluation outcomes within the context of the goals of career education set by the Office of Career Education: 1) Bonnet concluded that there is no evidence that career education either positively or negatively affects basic skills (reading or math) achievement. 2) Attendance increased in some cases but was not maintained during the second year. 3) Bonnet concluded that "...it is clear that the goal of fostering a desire to work is attainable through existing career education practices." 4) Twenty-two percent of the secondary studies showed significant differences ($p < .05$) between pre and posttest means on measures of decision-making, job-hunting and job-getting skills. 5) Job specific occupational skills were not generally assessed. Interpersonal skills were usually evaluated using self-concept instruments. 6) Self-understanding was measured by self-esteem ratings and items which related to self-appraisal in terms of career decisionmaking such as are found in the Career Maturity Inventory. There were few significant differences found at the secondary level for either the self-esteem or self-appraisal studies. However,

evaluation of career knowledge showed career education to be "conclusively successful" in this area. 7) No evidence was available to determine awareness of continuing or recurrent educational opportunities. 8) There was no evidence on whether graduates were actively seeking or placed in career or educational situations consistent with their career goals. Most graduates had had only limited exposure to career education at the time of the reviewed studies.

Another recent synthesis of career education evaluations for the Office of Career Education (Bhaerman, 1977) addressed the issue of basic skills achievement. Bhaerman's report stresses that, while all studies did not see gains in basic skills achievement, many did and few saw negative results.

Experience-Based Career Education (EBCE) was developed by four regional laboratories beginning in 1971 (Bucknam, 1976; Bernhardt and Owens, 1979). Each of the resulting four models had certain common program characteristics: community sites served as the focus for student learning experiences; each student had an individualized program based on their specific academic and career needs; and academic learning was integrated with career learning.

A synthesis of secondary level pilot site evaluations through 1976-77 (Bernhardt and Owens, 1979) showed similar findings to other career education programs.

- EBCE students progress in reading and mathematics at a rate at least equivalent to the progress of non-EBCE students.[1]
- Significant growth in career attitudes and career knowledge was detected at most sites by a variety of career development measures.
- Significant increases in student attitude toward self and others were found at only a few EBCE sites (p. 15-16).

In addition these evaluations assessed the attitudes of the students, parents, staff and community site supervisors toward the experiences students have in the programs. The opinions of these groups were overwhelmingly and consistently positive that the experiences are worthwhile.

The Career Intern Program (CIP) was funded by NIE and implemented in 1972 with the Philadelphia schools. This project enrolled students in an alternative school who were "not succeeding in their 'home' high school." The program featured individualized academic planning,

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[1]These findings were also included in the Bhaerman (1977) synthesis reported above.

coursework, personal and career guidance, career exploration and postprogram placement. This program was extensively evaluated.

- CIP interns showed higher school completion and lower dropout rates than controls.
- CIP interns showed increased responsibility on factors such as attendance, keeping appointments, rescheduling appointments and completing assignments. On a negative note, the study conceded that those results were won at some cost in staff time and effort.
- Regarding test taking skills: "In comparison to control students who were not enrolled in CIP, interns learned to listen to instructions, to ask for relevant information and to use the time available in a task-oriented way (p. 130)."
- Interns broadened their use of resources, including peer resources.
- Class participation increased both in quality and quantity.
- "Successful CIP interns are willing to repeat courses they have failed or to review material they have already studied (p. 131)."
- Reading and math achievement increased significantly for interns over controls, although they remained below national averages.
- Interns did not increase significantly over controls in terms of a sense of self-worth.
- "In both attitudes and knowledge thought essential for career planning, interns' scores increased substantially more than did controls (p. 147)."

Barton and Fraser (1978) reviewed programs they termed "occupational education and learning through experience." Their review of vocational education is included in this section. The trend of these programs has been toward an integration of vocational and academic education which has been much influenced by the career education movement. The Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 provided the impetus for numerous vocational education programs. Barton and Fraser cite several summaries of both secondary and postsecondary vocational education program evaluations spanning the time from 1963 to 1975. The consensus of these studies is that dropout rates are higher among vocational education students; there is little or no employment advantage for vocational education program graduates; those who trained in highly specialized or technical fields seldom got jobs in those fields; a student's socioeconomic background rather than the type of education received (other than college graduates) may be the single most important factor in their employment and earnings potential.

Cooperative education is another program which has also benefitted from federal legislation at both the secondary and postsecondary levels. A study by Frankel (1973) provides an interesting comparison between cooperative education, career exploration and work-study programs.[2]

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[2]To the extent that these findings compare cooperative education and work-study programs, they may be viewed as reasonably valid. However, the career education programs were considerably fewer in number (and probably less representative) than programs in the other two categories.

Specifically, it was found that a cooperative education program is more likely than any other type of program to:

- Provide students with job-related instruction in school
- Have a followup program for its graduates
- Have an advisory committee
- Provide job placement services
- Have a high rate of job-related placements
- Provide students with jobs that offer formal on-the-job training
- Help students in deciding on an occupation
- Provide students with jobs that fit into their career plans
- Provide students with jobs that have a high level of responsibility
- Provide students with jobs that afford a high degree of satisfaction

From a negative standpoint cooperative programs, when compared to the other types of work education programs, are most apt to discriminate against students on the basis of student attitude; they are less effective in reducing student absenteeism; and, because they place students in more responsible jobs, they are more apt to interfere with a student's other activities such as school work, dating, sports, etc. (pp. 3-4).

A more recent study by Cohen and Frankel (1977) of postsecondary cooperative education programs found that co-op graduates had higher

earnings than nonco-op graduates. This finding did not hold if only females were considered. Job experience appeared to be a heavily contributing factor to the greater salary of co-op graduates. Students were found to have benefitted financially during school and the co-op experience was viewed as "an important financial aid device for the participant."

Another important conclusion was that

> Five-year programs provide significantly higher annual student net incomes than four-year programs, and both provide significantly higher student net incomes per year than two-year programs. This pattern holds for every net income subcomponent, except for tuition where four-year programs have the highest per-year values (p. 11).

In terms of non-economic outcomes the authors noted that

> Graduate experiences relative to job satisfaction, job responsibility, work continuity and career plans were also examined in this study. No job satisfaction differences were statistically significant, nor were differences in job satisfaction observed among other sample stratifications (e.g., sex, race, GPA, program length, discipline area). However, some differences in levels of job responsibility were identified by co-op status. These differences indicated that co-op participation leads to somewhat greater job responsibility upon graduation. This is consistent with another finding that co-op participation is treated, in many respects, as similar to previous experience by the employer in terms of earnings (p. 11).

The major area of consensus among other studies cited by Barton and Fraser was that cooperative education graduates had a distinct advantage in offering employment based on their work experiences, often with one of the cooperative employers. The obverse of this finding was also true, that employers found cooperative education programs to be relatively inexpensive recruiting grounds.

The Executive High School Internship program places students into management level internships four days per week for a semester. One day is spent in a three-hour seminar and performing program housekeeping tasks. The Crowe and Walker evaluation (1977) used a comparison group which had volunteered to participate at a later time than the study participants. Their groups proved, however, not to be strictly comparable. Variables studied included knowledge of organizational theory and behavior, the management function, work habits, personal growth and writing. None of these variables showed significant growth pre to post nor participants versus comparison. The knowledge and writing areas proved not to be directly addressed by program activities. The failure to observe change in personal growth areas and work habits was attributed to the fact that these traits were implicitly used as participant selection criteria.

Barton and Fraser discuss several other career education types of programs noting that evaluations are extremely poor or nonexistent. These programs include the experimental Work Experience and Career Exploration Program (WECEP), Alternative Education and Community Education.

Summary of Career/Vocational Education Programs

Career education programs generally result in greater career knowledge and positive attitudes on the part of participants. These programs, with the exception of the Cooperative Education programs, generally do not result in greater postgraduate employment for participants. The long-term effects of these types of programs have not yet been thoroughly assessed.[3] One aspect which was not discussed in any of the evaluations was the relative effect of the programs on various population subgroups (e.g. by race, sex, etc.).

The relationship of basic skills achievement to participation in career education programs was studied in several of the sources cited. The evidence includes several situations in which career education students gained in reading and math over control students and few in which they declined. A large number of studies found no differences and the consensus appears to be that no adverse effects should be expected.

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[3]Biester (in process) describes a recent effort to conduct a three-year followup study of EBCE students.

Nonvocational/Career Experiential Programs

In this category of experiential education programs are included those which are not focused toward vocational skills or career knowledge acquisition. Nationally disseminated programs in this category include Service-Learning, Outward Bound and Foxfire (cultural journalism). The evaluation data are particularly scarce for these programs partly because the objectives tend to be affective and partly because their development was generally not federally funded.

Hoose (1974) studied 56 students who had participated in postsecondary service-learning interships in North Carolina from 1967 to 1971. Hoose describes the internships as follows: "A typical service-learning internship is a twelve-week, full-time assignment with a public agency through which the student receives academic credit and stipend (p. i)." Hoose interviewed 20 and surveyed 36 former service-learning interns. She found that approximately half were working in public service jobs. "...Where academic credit was awarded, there was apparently a greater degree of learning outcomes realized by the student." A conclusion based on the interviews alone was that "Having independence and public responsibilities while serving as an intern were important factors to many of those students."

Blackmer and Irwin (1977) studied the personal success of off-campus education[4] in 20 independent secondary schools. Questionnaires were administered to participants (pre-post), comparison students, faculty, parents, community supervisors, school office personnel and program directors. Because the study has several methodological problems, the data must be considered with caution. However, some of the author's conclusions are interesting:

- The determinants of participation were not also the determinants of successful participation and while academic factors may influence participation, "it is social and personal characteristics which are associated with satisfaction in the endeavor."
- Students without definite career or educational plans tended to be less successful than those who had more definite goals.
- Personal development was seen as both an important goal and outcome of experiential programs.
- Success rates corresponded to increased hours in the program with regular and continual participation more important than intensity.
- Those who moved to a special living situation were far more likely to have a successful experience than those who remained at home or in a dorm on campus.

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[4]"Off-campus education" apparently included career education types of programs. However, the type of programs and the relative participation were not reported.

- Counseling or "debriefing" is associated with more highly successful experiences. In addition, one-to-one conversations with faculty was apparently more helpful than seminar-type sessions with other participants. The author speculates that "the student wants to preserve the uniqueness of the experience and find its special meaning for him or her." (p. 25)."

Shore (1977) completed an extensive summary of research and evaluation studies of Outward Bound Programs. Two principle types of variables were studied with regard to Outward Bound Programs--self-concept and offender recidivism. The author includes self-concept, self-esteem and self-efficacy all within the category of self-concept. Having done so, he concludes that the studies "do not suggest consistent, stable, replicated results with regard to the effect of Outward Bound on self-concept (p. 53). His conclusions concerning recidivism are more positive: "Study results on the effects of Outward Bound on recidivism seem generally consistent." and "...positive evidence seems to be mounting, though it is by no means conclusive." (p. 53)." Shore is extremely critical of methodological flaws and lack of followup in most of the studies he reviews and, therefore, cautions against overgeneralization.

Conrad and Hedin (1978) reported the preliminary findings for the Evaluation of Experiential Learning Project (EELP). In the initial work, 24 possible outcomes were listed and 4000 students in 20 programs were

asked to respond on a four-point scale the extent to which they felt their program helped them to develop in various areas. Fourteen of the items received 80% or higher agreement. These items were:

1. Concern for fellow human beings
2. Ability to get things done and to work smoothly with others
3. Realistic attitudes toward other people such as the elderly, handicapped or government officials
4. Self-motivation to learn, participate, achieve
5. Self-concept (sense of confidence, sense of competence, self-awareness)
6. Responsibility to the group or class
7. Risk-taking--openness to new experiences
8. Sense of usefulness in relation to the community
9. Problem-solving
10. Risk-taking--being assertive and independent
11. Accepting consequences of my own actions
12. Gathering and analyzing information, observation, reflecting on experience
13. Knowledge of community organizations
14. Responsibility for my own life (p. 28)

The authors conclude that "the early findings of EELP suggest that direct community experience may be an important means for nurturing certain kinds of growth and development in students. That similar findings came from such a diverse range of programs--urban, rural, small town, private, parochial, public--is especially significant." (p. 29)."

Hedin (in process) cites several other studies of the "service-learning" type. Two studies found that college students gained significantly in self-esteem after performing volunteer work with retarded children.

Another study reported that students who were involved in political or social action outside the school became more open-minded and politically efficacious. Black and White high school students who did field work on the political structure of their city increased in feelings of political efficacy; however, Black and Chicano students in another school did not. Other equivocal findings included no significant differences on political and social efficacy measures between a group which performed volunteer service and a comparison group.

Another program which falls into the nonvocational/career category is Foxfire or cultural journalism programs.[5] In these programs students do the research, writing, photography, layout required to publish a magazine generally devoted to interesting persons and community history (Sitton, 1978). The programs are generally viewed as interdisciplinary and contain elements of (at least) English, journalism and social studies. Although there may have been local evaluations of cultural journalism programs, there are no published evaluations available at this time which provide an assessment of the impact of these programs on students.

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[1]Foxfire is the name of the program at Rabun Gap, Georgia and, although the program concepts have been disseminated, adoption sites are generally termed "cultural journalism" programs.

Summary of Nonvocational/Career Experiential Programs

As noted in the introduction to this section, the variables which for the most part have been evaluated in nonvocational/career experiential programs are affective variables presumably corresponding to affective objectives of the programs. The weight of results must generally be considered inconclusive. Definitive results await additional and methodologically sounder studies to be conducted and reported. It should be noted that at least one of the major programs in this category, cultural journalism, has had no outcome evaluation to date.

Conclusions

Three categories of programs (work experience, career/vocational education and nonvocational/career experiential programs) were reviewed according to available evaluation data. These categories were based on program goals, the characteristics of the programs and the types of variables addressed in the evaluations. In terms of general conclusions, few definitive statements can be made based on the evaluations of these programs primarily due to general problems with the evaluation studies which were indicated by the various authors cited (evaluation study weaknesses will be discussed in the following section of this report).

The following are statements summarizing the conclusions which can be drawn from the findings reported.

- There is little solid evidence to demonstrate improved employability of participants in work experience and training programs.

- Work experience and training programs may differentially affect types of participants in terms of their race, sex and previous education.
- Some evidence indicates the most positive effects of work experience and training programs may be with the hard-core subgroups such as offenders or Black teenage females whose entry scores are initially lowest. Such effects may be real or may be statistical "regression to the mean."
- Career education participation results in greater career knowledge and more positive attitudes toward work, although no demonstrated increases in employability. The exception to this latter statement is the cooperative education programs that often result in students being hired by the employer to which they were assigned.
- Career education does not adversely affect basic skills achievement and in some cases appears to be responsible for increasing tested achievement.
- There is some evidence that both work experience and career education type programs positively affect attitudinal variables. However, to a large extent this has not been studied in the work experience and training types of programs.
- Although this issue was mentioned in only a few instances, it did not seem to matter whether or how much students were paid as to the attitudinal outcomes they evidenced.
- The evidence is inconclusive as to whether various nonvocational/career experiential programs positively affect such variables as self-concept or self-esteem.

II. PROPOSED FRAMEWORK FOR FUTURE EVALUATIONS

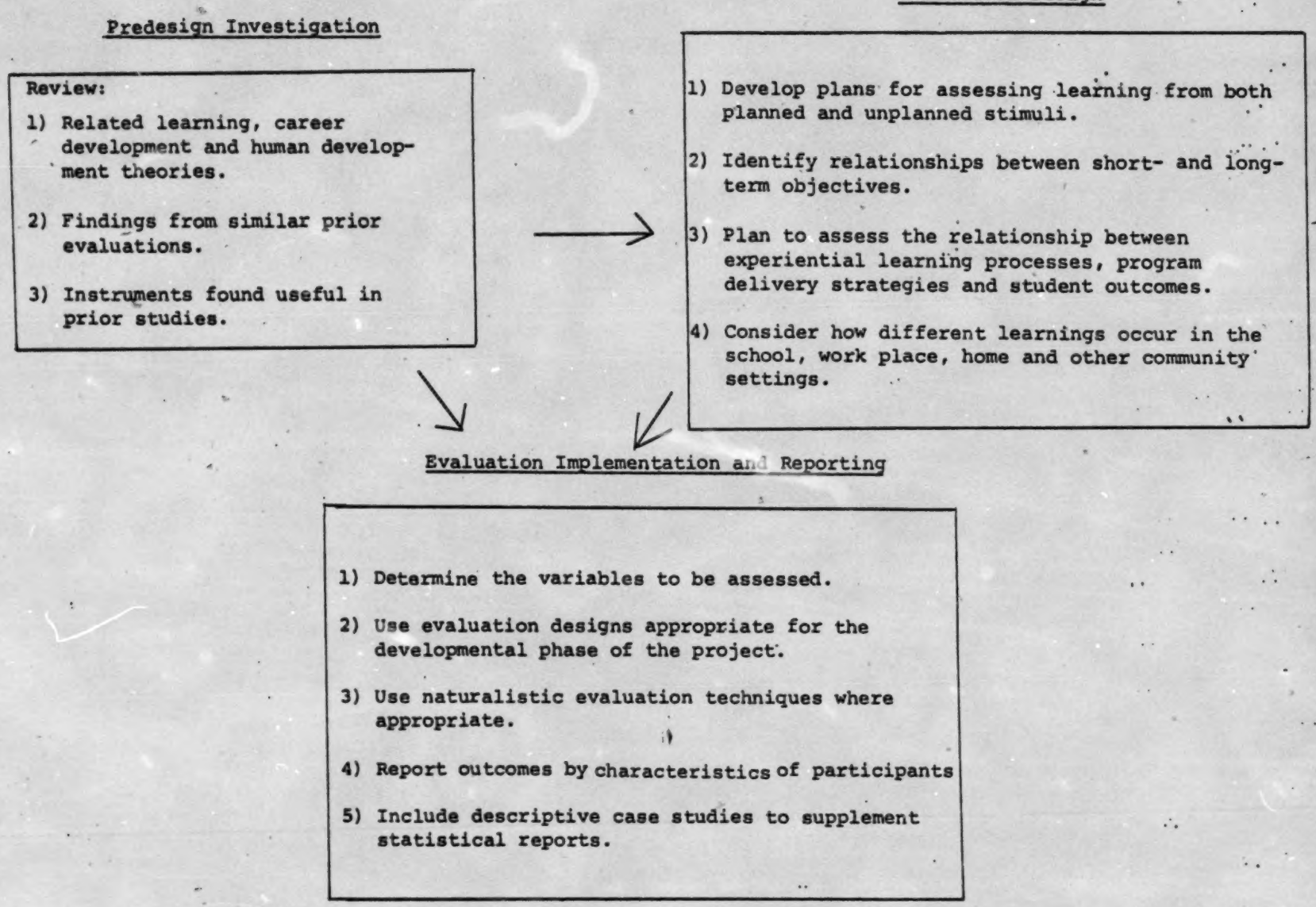
General findings from a review of the literature indicate that the majority of evaluations appear to be poorly conceptualized and fail to build on previous evaluations of similar programs. These limitations of prior evaluations have led to a proposal for a new framework for conducting such evaluations. Critical aspects in this framework center around: 1) predesign investigations, 2) designing the evaluation and 3) implementing and reporting the evaluation.

This section of the paper presents a framework for evaluating experiential learning programs that has evolved as a result of investigating unique characteristics of experiential learning programs and numerous evaluations conducted in this area. The approaches proposed here are not meant to be another evaluation model but rather a recommended framework for consideration by people already familiar with general evaluation principles. Key elements of this framework are depicted in Chart 1 and are discussed in the remaining section of this paper.

Predesign Investigations

Prior to developing an evaluation plan for an experiential learning program, it is useful to study factors both external and internal to the project. External factors include a review of some theories that may help organize and establish relationships among the separate objectives and student outcomes likely to be explored in the evaluation. Examples

Chart 1: Framework for Evaluating Experiential Learning Programs


Predesign Investigation
Review:
1) Related learning, career development and human development theories.
2) Findings from similar prior evaluations.
3) Instruments found useful in prior studies.
Evaluation Design
1) Develop plans for assessing learning from both planned and unplanned stimuli.
2) Identify relationships between short- and long-term objectives.
3) Plan to assess the relationship between experiential learning processes, program delivery strategies and student outcomes.
4) Consider how different learnings occur in the school, work place, home and other community settings.
Evaluation Implementation and Reporting
1) Determine the variables to be assessed.
2) Use evaluation designs appropriate for the developmental phase of the project.
3) Use naturalistic evaluation techniques where appropriate.
4) Report outcomes by characteristics of participants
5) Include descriptive case studies to supplement statistical reports.

of such theories include social learning theory (Bandura, 1978), attribution theory (Bar-Tal, 1978) and motivation theory (Atkinson, 1964). A second area worth pursuing is that of evaluation findings resulting from prior programs similar to the one to be evaluated. In this respect it is equally important to determine which outcomes have been found not affected by such programs as to find which have shown significant changes. The third type of information useful before preparing an evaluation plan is the names and characteristics of evaluation instruments that have been used to assess outcomes similar to those expected in the program to be evaluated. As with program objectives, it is important to know which evaluation instruments revealed significant student gains and which ones did not. In the recent evaluation synthesis of career education programs sponsored by USOE Office of Career Education during 1975-76, Deborah Bonnet (1977) identified, for example, a widely used commercially available instrument of career maturity that has revealed no significant growth in 32 out of 34 evaluation studies (p. 60).

Designing the Evaluation

It has become fashionable for evaluation critics to attack goal statements and behavioral outcomes of many educational programs for lack of precision and coherence. Freeberg (1976), in writing about youth work training programs, has stated that "Instead of verifiable procedures, the prescriptions provided for specifying training objectives and associated measures appear to begin and end with purely consensual or rational decisions, usually leading to a laundry list of recommended performance

outcomes that somehow appeal to the particular writer. (p. 537)." In contrast, Freeberg borrows from criterion theory to recommend: 1) multiple behavioral indexes especially in the initial phases of criterion development, 2) specification of criteria along a temporal continuum to include short-term, intermediate and long-term measures and 3) concurrent and predictive validity (the relevance of a criterion to others obtained at the same time and in the future.

In evaluating experiential learning programs where much of the learning takes place in an individualized manner at a community setting it appears important to not only assess predesigned criteria, developed in the manner proposed by Freeberg, but also to be alert to assessing learning resulting from unplanned events which are experienced by the learner and reflected upon by the student and learning coordinator or teacher. An example of an unplanned stimulus for learning can occur in a situation where a student shows up late several days at a job site he or she was exploring and gets told by the employer not to return. An open discussion on this experience by a student and learning coordinator can produce new insights to help the young person modify both attitudes and behavior.

Traditionally, employment and training programs have assessed whether a student has gained job entry skills, gained employment in the particular occupation and the salary received. More recently, researchers have stressed the need for also assessing occupational adaptability and transferable skills (Pratzner, 1978) that facilitate a person's ability

to function successfully across a variety of careers. Those involved in career education are faced with broader outcomes that include improved self-concept, work values, decision-making skills, use of leisure time and awareness of means available for continuing and recurrent education (Hoyt, 1978). Service learning programs have focused on helping students to learn concern for others, ability to work with others, realistic attitudes toward different types of people and self-motivation to learn, participate and achieve (Hedin, 1979). Clearly the list is unending and thus a critical element of the evaluator's role is to determine which objectives are central to the program under investigation and which have at least a fair chance of being achieved.

While it is important to look at learner outcomes, it is equally important to describe the delivery strategies being used to help students achieve these objectives. In the past, the delivery strategies have been generally ignored or described in broad terms such as career explorations and career counseling. In addition to depicting these strategies in a more concrete way, it would be useful to assess the experiential learning processes involved. In a recent research study based on a social learning theory framework, Owens and Owen (1979) identified a number of characteristics of experiential learning that high school students in eight Experience-Based Career Education projects identified as important reasons why a particular community experience was an excellent or poor learning experience. Characteristics associated most with excellent learning experiences were, in descending order of importance:

1. Trying out tasks

2. Being given real responsibility
3. Listening and talking with people at community sites
4. Receiving clear directions to follow
5. Engaging in challenging tasks
5. Applying learning to new things
6. Adult encouragement for doing tasks well
7. Learning technical words and language associated with a career of interest
8. Freedom to explore areas not planned in advance
9. Personal interest of a supervisor
10. Encouragement from family or friends
11. Knowing ahead of time what would be expected
12. Discussions of the student's experiences with staff and other students

Characteristics students associated most with particular community experiences resulting in little or no learning were, in decending order of importance:

1. Boring tasks
2. No personal opportunity to try out the work
3. Too much repetition of an activity
4. No opportunity to explore other areas of interest
5. No opportunity to apply learning to new things
6. Not knowing what would be expected
7. No recognition from other workers for doing tasks well
8. No opportunity to observe or talk to workers at the site

9. Lack of clear directions to follow
10. No opportunities to discuss my experiences with other students
11. Being too closely supervised

Perceived importance of factors related to positive or negative learning experiences was not affected by student's sex. However, a significantly greater proportion of young females than males identified a better understanding of others as a learning outcome from their EBCE community site experiences. Students of both sexes felt that a major outcome of their community experiences was a better understanding of a specific career of interest.

More detailed research on some of these characteristics is likely to reveal important factors that motivate a young person to learn and to lead to recommended program improvements. As evaluators become more experienced in assessing special features of community-based experiential learning programs, as compared to school-based programs, they will also give attention to the diverse environments for learning that include the school, work place, home and other community settings (such as participation in a Boy Scouts of America program). The environments become critical to study in some cases because learning in one setting may reinforce or contradict learning in other settings. An example where confusion occurs is found when a young woman learns from her parents that her place as a future mother is in the home while at school she is encouraged to explore nontraditional careers.

At the expense of adding to the frustrations of an already overwhelmed reader wondering how he or she could possibly consider all of these aspects of student outcome evaluation, we feel it is useful to remind evaluators that, for some projects, it is equally important to assess program effects on the staff and on participating community resource persons. For example, it has been found, over several years, that participating employers see as benefits for their participation in Experience-Based Career Education not only a chance to help students but, also, an opportunity to informally screen potential employees, to become better acquainted with the thinking of young people and gain prestige as a result of explaining their jobs to interested young people (Owens, Haenn amd Fehrenbacher 1975).

Evaluation Implementation and Reporting

After engaging in the activities suggested above as part of the evaluation planning process it is necessary to touch base with reality in recognizing that the quickest way to an ineffective evaluation is to attempt to evaluate everything. Criteria are important for determining what variables to select for an intensive study, which may be explored in a more casual fashion and which go beyond the resources available. In selecting variables to be evaluated, the evaluator needs to consider factors such as: 1) legislative or administrative mandates related to the project, 2) the project's objectives, 3) areas likely to affect program modifications, 4) prior findings from related evaluations, 5) variables related to a theoretical explanation of why a program works,

6) the availability of valid measures to adequately assess potential variables and 7) variables related to policy studies.

Persons reviewing evaluations of high school experiential learning programs have often commented on the inadequate research designs employed. Usually these criticisms reduce to a plea to employ an experimental research design such as that involving pre and posttesting of an experimental and control group. The pros and cons involving the appropriateness of such designs have been thoroughly discussed elsewhere (Borouch 1977, Guba, 1978). The point we wish to make here is that decisions regarding appropriate designs need to be considered in light of the developmental cycle of a project and the purposes for the evaluation. In the case of most new programs, at least one year is needed to try out various delivery strategies, debug them and to establish a stable program. Often a descriptive case study design is most appropriate at this time. A second program phase may be needed to test the ability of the program to achieve its promised outcomes. In this phase an experimental or quasi-experimental design (Campbell and Stanley, 1973) may be useful. Some programs progress to a third phase in which the project's delivery strategies have stabilized and the interest shifts to considerations about expanding the program or disseminating it to other districts. At this time people are usually interested in the longer-term impact of the program on former students and in issues related to the transportability of the project (i.e. program costs, staff training required and ways of selling the concept to other educators and

the community). These concerns sometimes lead to graduate follow-up studies and cost-effectiveness studies.

Programs based on experiential learning, in contrast to what James Coleman (1973) refers to as "knowledge assimilation" approaches, attempt to place young people in "real world" environments in which they learn by directly engaging in activities and then reflecting on the meaning of their experiences. Such approaches are particularly appropriate for helping young people gain important competencies needed to be successful adults. Ideally, an effective evaluation of an experiential program would determine: 1) what learning took place, 2) how the learning occurred, 3) the different meanings that individuals attach to their experiences and 4) the ability learners have gained to apply their new attitudes, knowledge and skills to new situations. Unfortunately, the authors have not discovered an evaluation report that addresses all four areas.

Since experiential learning, as we have defined it, occurs in a real world environment rather than in the artificial environment often found in a classroom, it might be expected that naturalistic techniques would primarily be used to assess student performance. Unfortunately, most of the evaluation we reviewed relied on paper and pencil instruments to assess learner outcomes. Applied performance tests, designed to measure performance in a naturalistic setting, have not yet gained wide usage. Examples where such applied performance tests would be useful are in completing a job application, typing a business letter, demonstrating

current life saving treatments in a first aid class, participating in a job interview simulation and in applying reading and mathematics to everyday work problems.

Examples of applied performance tests evolving from an experiential education program can be found in the Experience-Based Career Education Program (EBCE) developed through the Northwest Regional Educational Laboratory. As a part of this EBCE program students master "survival skills" identified by the local community as essential for successful adult life in that community. At the EBCE demonstration site in Tigard, Oregon, for example, the community representatives identified the following 13 competencies: transacting business on a credit basis; maintaining a checking account in good order; providing adequate insurance for self, family and possessions; filing state and federal income tax; budgeting time and money effectively, maintaining good physical health and making appropriate use of leisure time; responding appropriately to fire, police and physical health emergencies; participating in the electoral process; understanding the basic structure and function of local, state and federal government; explaining one's legal rights and responsibilities; making appropriate use of public agencies; making application for employment and successfully holding a job; and operating and maintaining an automobile. In most of these competencies, procedures have been identified for relevant volunteers of the community to certify successful completion of the competency. For example, a bank official certifies the checking account competency while

an internal revenue service agent certifies the tax competency employing actual procedures and forms used by adults in the community.

In addition to applied performance measures, a number of other nontesting evaluation techniques have been used by educators interested in evaluating student or program outcomes of experiential learning programs. These techniques include analysis of anecdotal records, checklists, content analysis of documents, drawings, interviews, journals, observations, peer nominations, photography, physical traces, questionnaires, rating scales, role play, self inventories, simulations and tape and videotape recordings. Although each of these techniques has its limitations, increased confidence in findings results when two or more evaluation techniques used to measure the same dimension produce supporting evidence.

So far we have presented a framework for conceptualizing, designing and implementing evaluations of experiential learning programs. A final consideration we wish to discuss is that of reporting evaluation findings.

Evaluation reports of experiential learning programs have seldom discussed program findings in relation to the characteristics of the learners involved. Seldom is it shown whether program delivery strategies have a differential effect depending on the learner's sex, race, age, socioeconomic status or general achievement level. Likewise it would be useful, when possible, to relate experiential learning characteristics to program delivery strategies and student outcomes. For

example, positive reinforcement by community resource people encountered in career explorations may be a key influence on some youth in deciding which particular career field to enter. Such findings can help us go beyond learning that a student has made a career choice, to understanding predominant influences that led to that learning.

Statistical reports seldom communicate the flavor of what experiential elements or delivery systems were particularly effective or ineffective in contributing to one or more learner outcomes. Carefully planned and documented student case study procedures have been developed (Fehrenbacher, Owens and Haenn, in process) have been developed that complement statistical findings in conveying to staff, students and community people the individualized treatment that should be part of an experiential learning program.

III. POLICY RECOMMENDATIONS

The following policy recommendations have emerged in the process of assessing evaluations of experiential learning projects.

1. A review of the literature on experiential learning has uncovered a number of theories such as those involving social learning, attribution, motivation, career development and personal/social development that could be used in better designing evaluations and interpreting experiential learning program outcomes of education and training programs. Research should be supported that helps to identify specific postulates from such theories that would help integrate and explain findings from experiential learning programs funded by the Department of Labor.

2. Syntheses of program evaluations of work training programs, career and vocational education programs and service learning programs have uncovered relatively few validated evaluation instruments that can detect significant student gains on program outcomes. Research that would index and describe which instruments have been able to detect significant student growth on particular outcomes for various types of youth should be initiated and disseminated to evaluators. For outcomes where no satisfactory instruments exist, new instrument development efforts should be funded.

3. The discussion of appropriate evaluation designs to fit the developmental cycle of education and work programs indicated that the designs should match the developmental stage of the program. If stable program delivery strategies are to be effectively assessed, it becomes essential that the Department of Labor identify some exemplary programs for a two- or three-year funding cycle.

4. Knowledge development activities need to be carefully focused on a few questions for which data can feasibly be obtained. As evidence accumulates on a particular issue, the focus of such questions can be shifted to new areas or issues of interest.

5. Funding agencies which require program evaluation or knowledge development activities should specify the criteria for this activity prior to the time of funding. These specifications should include such requirements for cross-program studies as comparison groups, estimates of the amount and length of testing time for youth, amount of staff time to be involved and forms or instructions for provision of data.

6. The definition of experiential learning used in this study included learning resulting from unplanned as well as planned interventions. The life experience of many adults reveals that choices of life styles and careers are often influenced more by unplanned critical incidents than by a rational developmental

pattern. We know very little, however, about what conditions are likely to result in critical incidents for young people and how they learn to recognize them or capitalize on such chance events. Research in this area of experiential learning could be especially useful to women and disadvantaged youth and may produce greater changes for improving their lives than would continued research on traditional educational approaches.

7. A number of elements of experiential learning are seen by youth as important for excellent learning experiences in the community. In-depth study of some of these elements, such as developing a sense of responsibility, is essential in order to depict the construct, develop a typology of levels of responsibility, determine ways of increasing this trait in young people and develop valid measures for assessing growth in this area.

8. Studies of career decision making and attitudes toward work have generally centered in the schools or in the work place. How a young person receives supporting or conflicting messages from different environments such as school, job site, home or other elements of the community is important to recognize if we realize that schools are not the sole location of learning. DOL funded research in this direction may reveal which environments are most suited for producing which types of learning.

9. Various researchers in synthesizing evaluation reports of education and work programs have indicated the importance of knowing differential program outcomes in relation to characteristics of the particpating young people. Nevertheless, many evaluation reports still fail to differentiate program findings by the participants' sex, race, achievement level or socioeconomic level. The Department of Labor guidelines for evaluation should request a breakout of evaluation report findings by relevant characteristics of the participating population.

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